Comprehensive Tolling Study

Workshop with

Washington State Transportation Commission

presented by

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December 13, 2005

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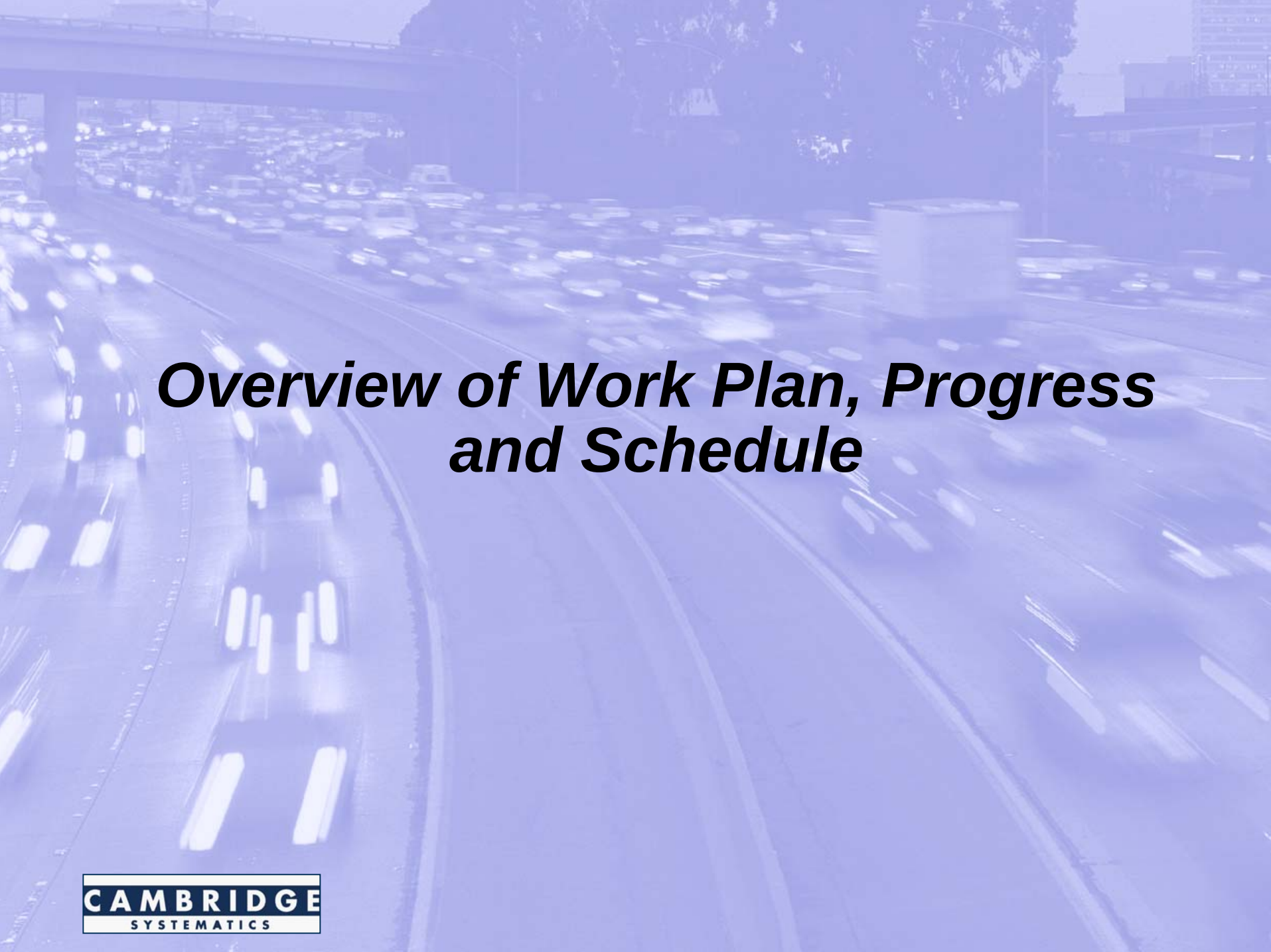

Overview of Work Plan, Progress and Schedule

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Purpose and Objectives

- **Create a process that facilitates the state's ability to make policy level decisions on if, where, when, and how to toll**

- **Policy framework**
  - **What makes tolling "feasible"?**
  - **Tacoma Narrows Bridge and statewide implications**
  - **Implementation issues**
    - **Tolling technology**
    - **Legal and regulatory**
    - **Organizational and administrative**
    - **Social and environmental considerations**

More….

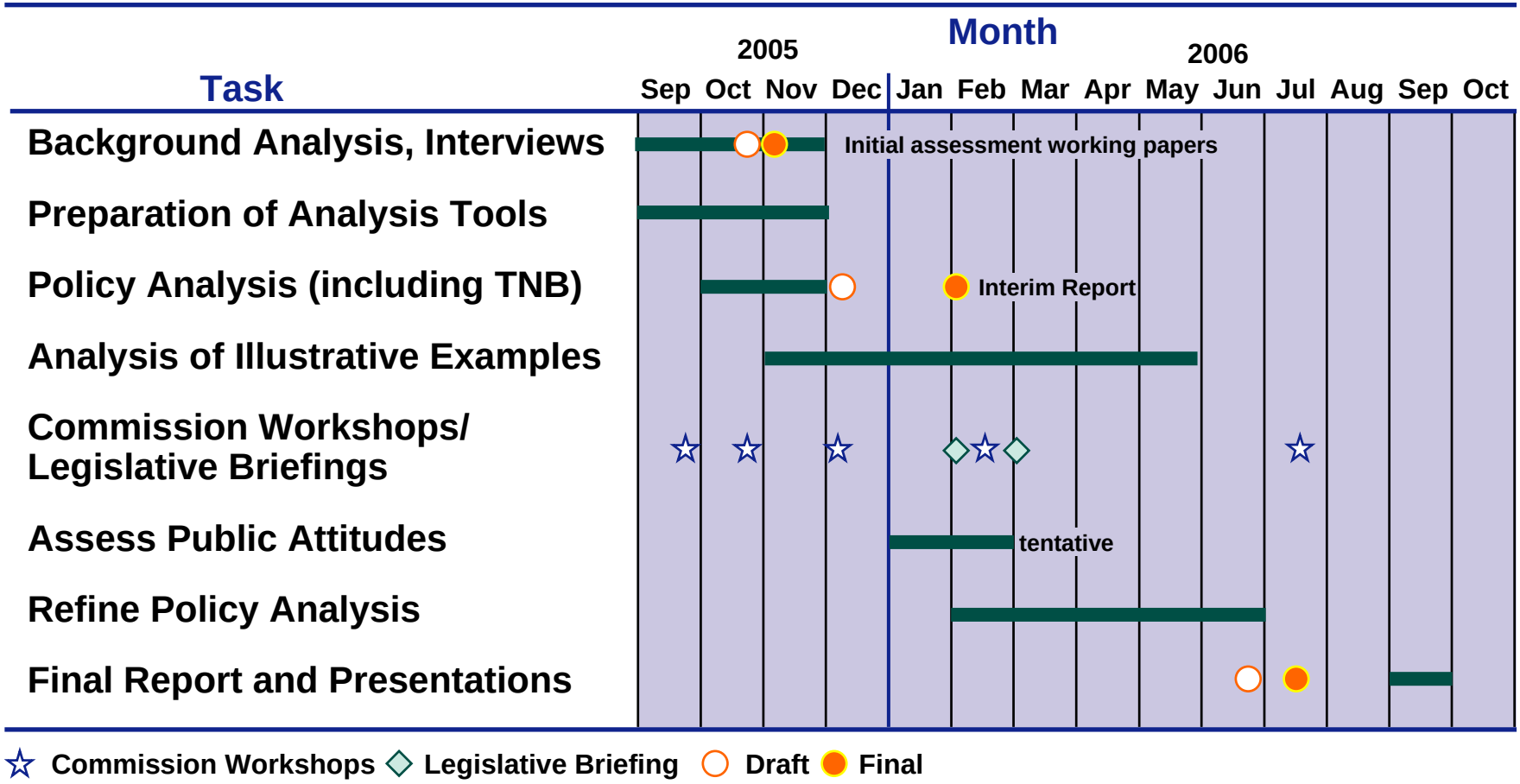
Purpose and Objectives (continued)

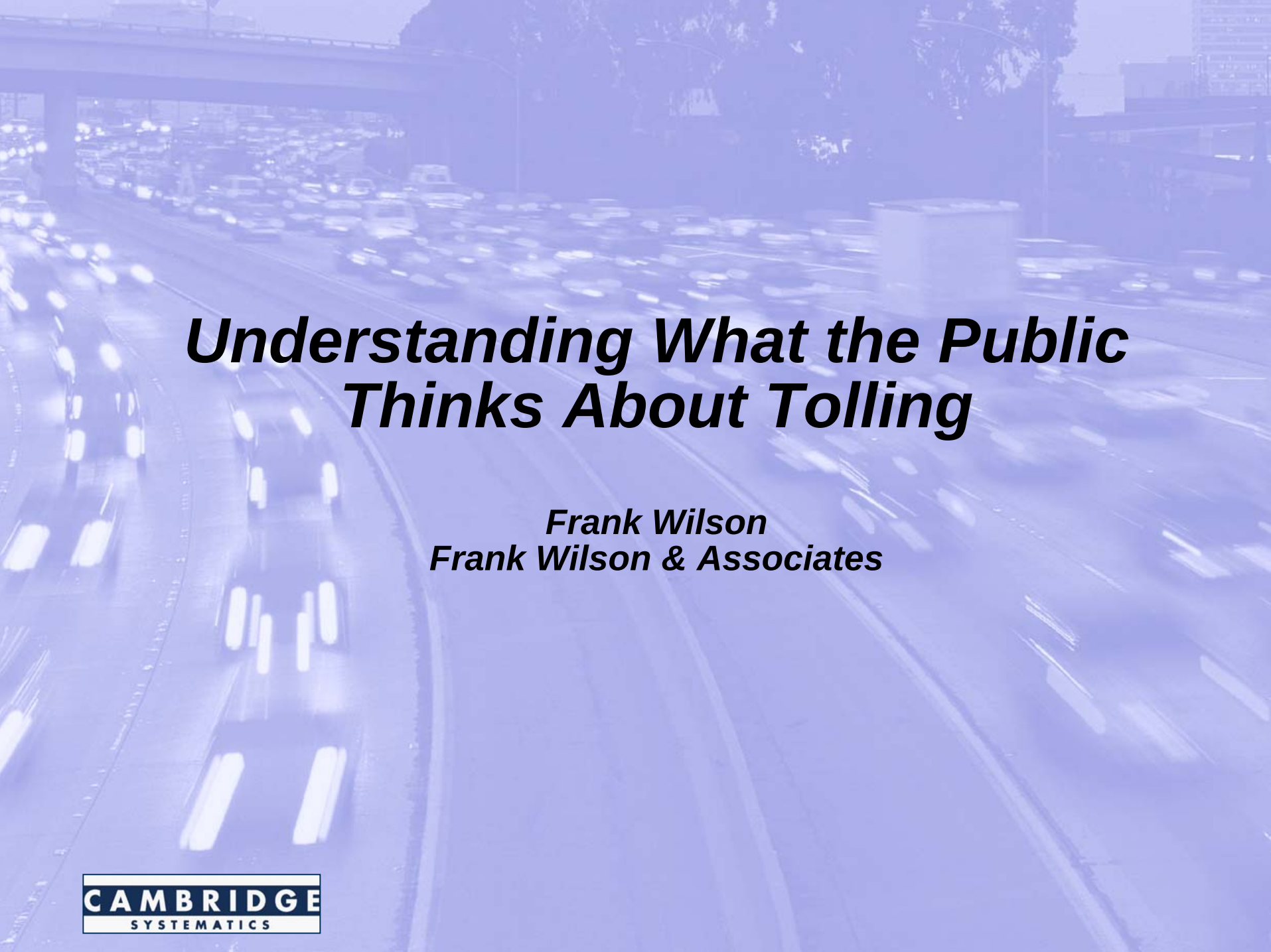
- Merits of particular projects
  - Legislatively directed projects for study
    - SR 704 “Cross Base Highway”
    - Support RTID
    - Alaskan Way Viaduct
    - SR 520 Floating Bridge
    - I-405 Managed Lanes
  - Others around the state
  - Not a comprehensive and definitive look
    - Illustrative projects to help define policy
    - Not “investment grade”
- How should study results be communicated?
- How should public attitudes be assessed?

Project outcomes and today's objective

- **Project outcomes:**
  - **Consultant analysis and recommendations on overall policy and implementation strategy**
- **Today's objective:**
  - **Present outcome of ascertainment interviews**
  - **Discuss plan for communications and assessing public attitudes**
  - **Present and Discuss Draft Interim Report**
    - **Background analysis**
    - **Policy options**
    - **Consultant recommendations**
    - **Commission discussion**

Schedule


Month
2005
2006
Task
Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct
Background Analysis, Interviews
Initial assessment working papers
Preparation of Analysis Tools
Policy Analysis (including TNB)
Interim Report
Analysis of Illustrative Examples
Commission Workshops/
Legislative Briefings
Assess Public Attitudes
tentative
Refine Policy Analysis
Final Report and Presentations
Commission Workshops
Legislative Briefing
Draft
Final



Understanding What the Public Thinks About Tolling

Frank Wilson
Frank Wilson & Associates

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What we did

- **Interviewed 14 people knowledgeable about transportation and community issues**
  - **Elected officials**
  - **Freight stakeholders**
  - **Business and labor leaders**
  - **Transportation and Environmental advocates**
  - **Newspaper editors**
- **Representatives from around the state**

What is most important?

- **When asked this open-ended question, these were most important:**
  - **Safety**
  - **Congestion Relief**
  - **"Fairness"**
    - ***But…is the current system fair?***

What is important?

- **Tolling is the way of the future.**
  - **It is inevitable**
  - **It has been the tradition for funding bridge construction in Washington.**
  - **There is no other way to build what we need.**
- **Acceptance of tolling by the general public will take time.**
  - **Do some pilot projects first.**
    - **Tacoma Narrows Bridge and SR 167 viewed as defacto demonstration projects.**
  - **Communicate**

What parts of the system lend themselves to tolling?

- **Bridges are natural**
  - **They have traditionally been tolled and it's the only way to pay for them**
- **Projects with a clear need and conditions that make tolling practical**
- **Tolling an entire existing road was not desirable**
  - **Offer choices as in HOT**
- **Start slowly, with the basics - Keep it simple**

Projects that add capacity or relieve congestion

- 520 and 90 bridges both mentioned frequently.
- SR 167 HOT lanes is a good project.
- I-5 (problem of Convention Center was mentioned by several interviewees)
- I-405 between I-5 on the north and south
- I-90 additional capacity (various locations across the state)
- Columbia River bridges

Key Issues

- **Support for tolling is strong among opinion leaders. But there are issues:**
  - **“Fairness”**
  - **“Captive market” dilemma**
  - **RTIDs could lead to further disparities between urban and rural**
  - **Communicating what WSTC and state are doing is critical**

How should we assess public attitudes?

Frank Wilson
Frank Wilson & Associates

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Research Objectives

1. **Find out whether and under what conditions is using tolls to**
   - **help manage congestion**
   - **pay for parts of the transportation system**

   is acceptable to Washington citizens
2. **Testing potential outcomes of this study:**
   - **Policy alternatives**
   - **Implementation proposals**
   - **Approaches to governing a statewide system.**

Case Study Approach

- **Broad, statewide survey not necessarily appropriate**
- **Suggest 3 "case studies" areas that examine varying conditions and potential opportunities.**
- **Each case study would consist of a survey, focus groups and interviews**
- **Include**
  - **Fundamental statewide survey questions**
  - **Specific local questions**

Study-Surveys

- **Consider three study-surveys, e.g.**
  - **New construction, e.g., Cross Base Highway.**
  - **Tolls on an existing highway for improvements with intense, high-cost needs, e.g., Snoqualmie Pass.**
  - **Bridge systems, e.g., SR 520/I-90 crossings or Columbia River crossings**
  - **Managed lanes, e.g., I-405.**
  - **Broad system management concepts, e.g., pricing all highways in Puget Sound region.**
- **Will work with Commission to choose**

Study-Surveys

- **A survey**
- **In-depth interviews of stakeholders and community leaders**
- **Focus groups**
- **Launch early 2006 to provide input to WSTC report and recommendations.**

Draft Outreach, Participation and Communications Plan

Frank Wilson
Frank Wilson & Associates

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Objective

Proposals that better reflect the interest and needs of the communities and people served.

What stakeholders told us

- **Clarity – Articulate a clear picture of expectations and goals**
- **Benefits – Articulate potential benefits**
- **In the last couple of years WSDOT has "listened and made corrections."**

More…

Principles

1. **Adhere to democratic principles**
2. **Maintain contact**
3. **Use a variety of techniques**
4. **Make it an "active" outreach**
5. **Focus participation on decisions**

Communications, Outreach and Participation Program

- Identify and interview stakeholders. (Complete)
- Public information at key milestones. (Draft materials submitted)
- Commission's Web page as an interactive tool

Communications, Outreach and Participation Program -- Proposed

- **“Commission Road Show” in 5 areas of the state that would likely be most affected by any recommendations coming from the study.**
  - **Roundtable with local officials and opinion leaders**
  - **Open house for public**
  - **Meetings with editorial board of local paper**
  - **Other media opportunities**

Overview of Draft Interim Report

Jeff Buxbaum
Cambridge Systematics

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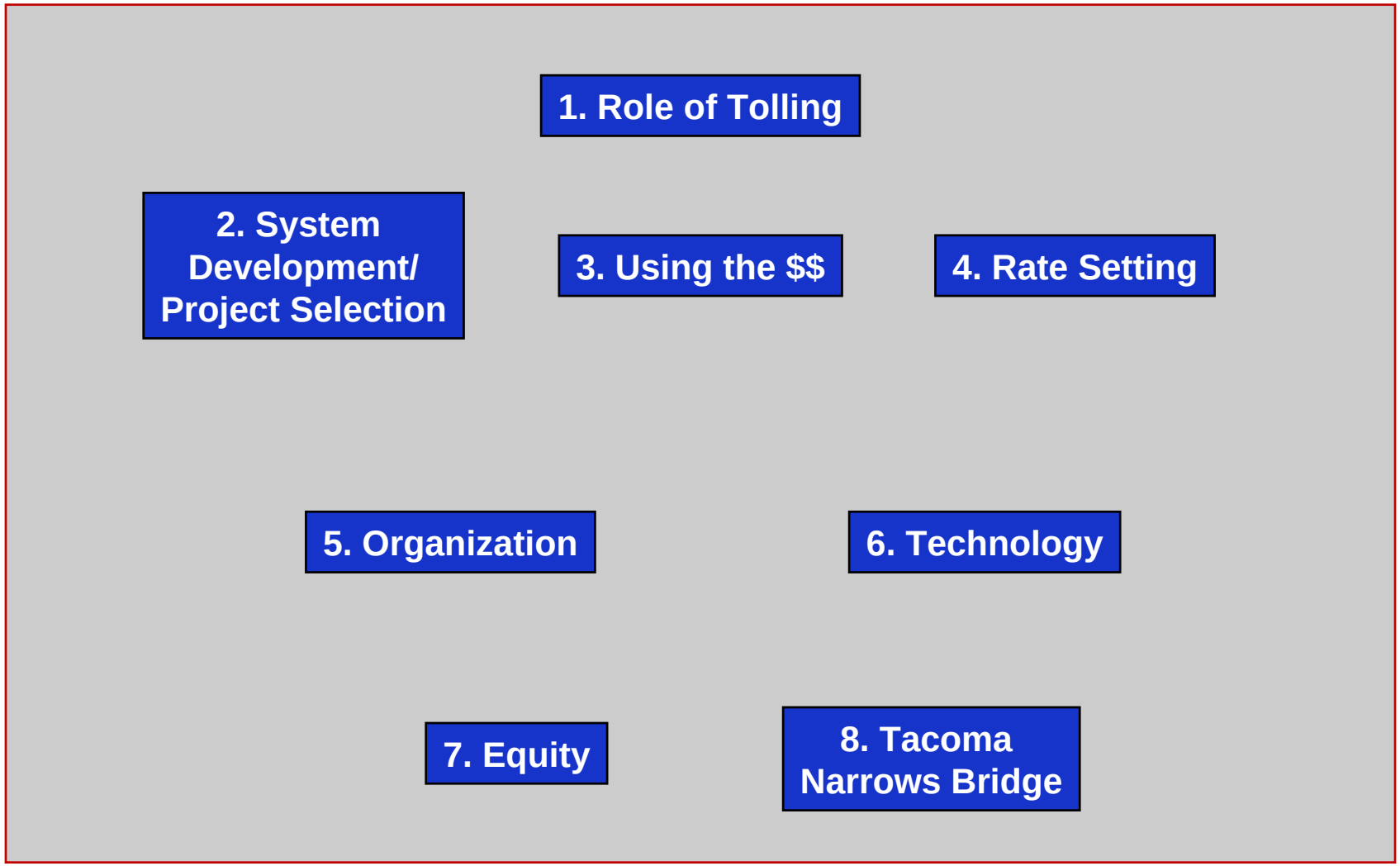
Interim Report Policy Questions

1. What role can tolling play in developing and managing Washington's transportation system?
2. How should Washington decide which parts of the system to toll or price?
3. What rules should govern use of toll dollars?
4. What rules should govern setting toll amounts?
5. What is the most appropriate governance and organizational structure?
6. How does technology and toll operations influence statewide toll policy? How should statewide toll policy influence technology and operations choices?
7. How do equity, fairness, and uniformity issues influence toll policy?
8. What are the implications of alternative toll policies at Tacoma Narrows Bridge?

Relationship Between Questions



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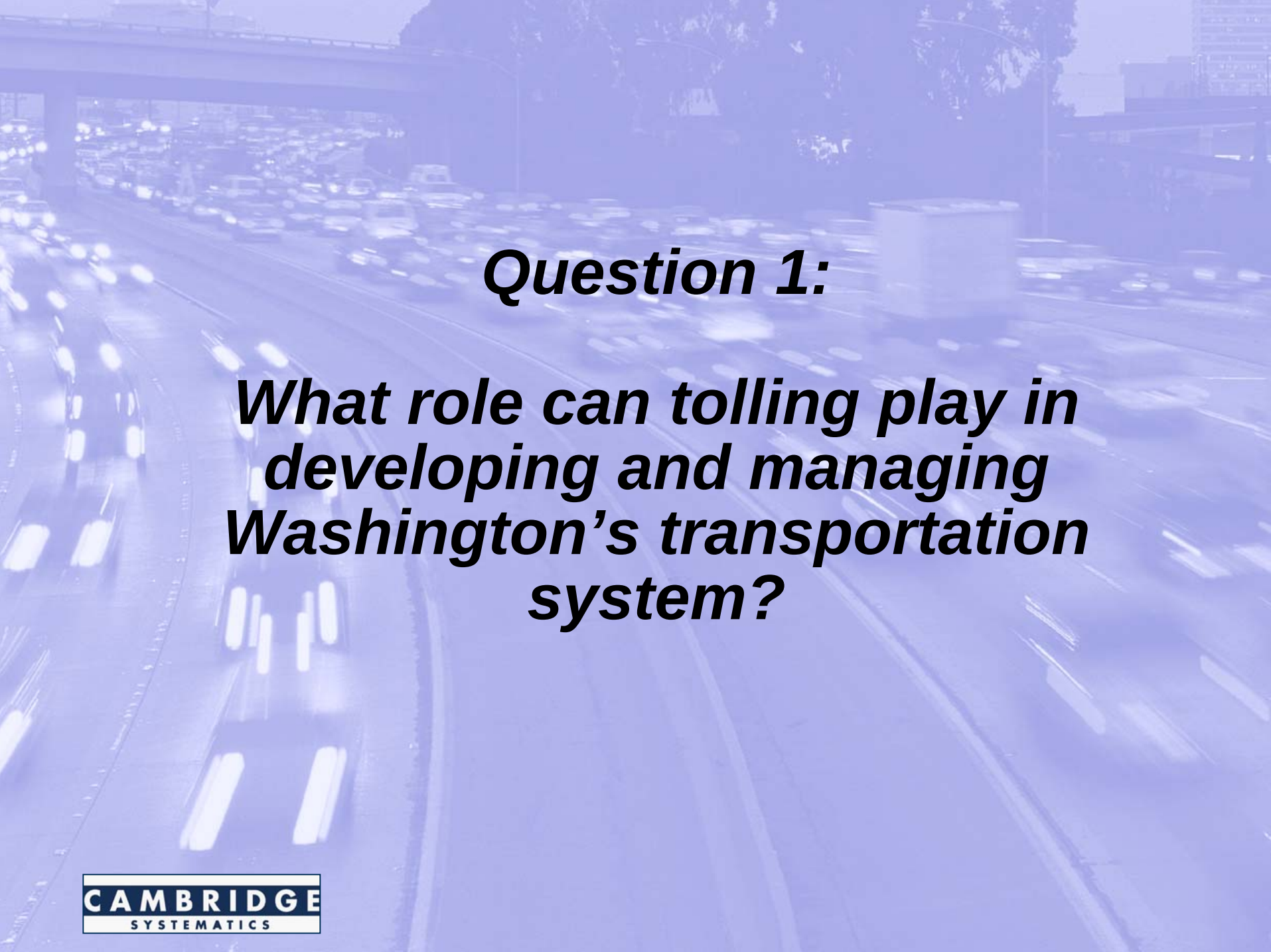

Question 1:

What role can tolling play in developing and managing Washington's transportation system?

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Potential roles of tolling

- **Tolls/pricing can help**
  - **Fund new capacity**
  - **Fund high cost improvements**
  - **Better manage the system and make more effective use of existing and new capacity**
- **Historically tolls viewed as a funding tool**
- **Now and into the future – system management**
- **Even if the focus of tolling is on project or system finance, management implications on system must be addressed**

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Funding bridges through tolling is business as usual in Washington

Bridge	Toll Collected	Toll *	Initial Toll Converted to 2005 Inflation Adjusted Dollars
Longview (SR 433) *(Built in 1930, Purchased in 1947)*	1930 - 1965	$1.00	$23.02
Lacey V. Murrow Memorial Bridge (I-90) *(First Lake Washington Bridge)*	1940 - 1949	$0.50	$6.86
Tacoma Narrows Bridge (SR 16) *(First Bridge)*	1940 - collapsed	$1.10	$15.10
Agate Pass Toll Bridge (SR 305)	1950 - 1951	$0.50	$3.99
Tacoma Narrows Bridge (SR 16) *(Second Bridge)*	1950 - 1965	$1.00	$8.77
Fox Island Bridge (SR 303)	1954 - 1965	$0.75	$5.36
Port Washington Narrows Bridge (SR 303)	1958 - 1972	$0.20	$1.33
Spokane River Bridges (SR 2 / SR 395)	1958 - 1990	$0.50	$2.66
Vancouver/Portland Bridge (I-5)	1960 - 1966	$0.40	$2.60
Hood Canal Bridge (SR 104)	1961 - 1979	$2.60	$16.71
Biggs Rapids Bridge (US 97) *(Sam Hill Memorial Bridge)*	1962 - 1975	$2.00	$12.73
Evergreen Point Bridge (SR 520) *(Second Lake Washington Bridge)*	1963 - 1979	$0.70	$4.40
Vernita Toll Bridge (SR 24)	1965 - 1976	$1.50	$9.15
Hood Canal Bridge (SR 104) *(Rebuilt)*	1982 - 1985	$4.00	$9.96
*New Tacoma Narrows Bridge (SR 16) (Third Bridge) ****	*planned for 2007*	*NA*	*$3.00*

* Toll fees shown are round trip charges for a vehicle and driver only.

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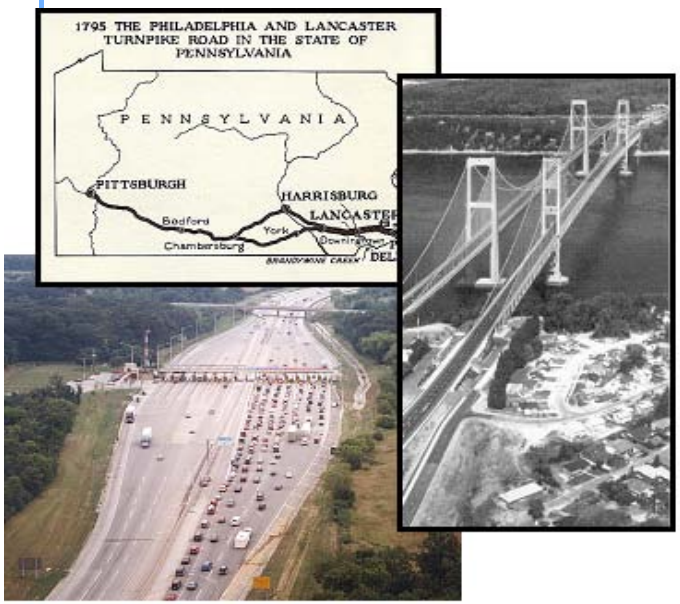
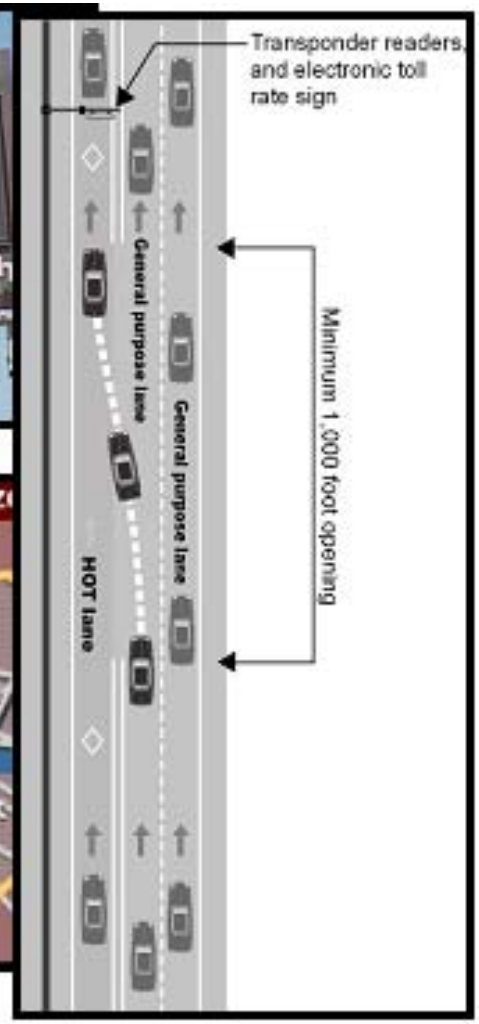
New Technology Brings New Opportunity

Traditional Tolling Funds Projects



Motivation: Funding $$



Pricing (new)

Motivation: Efficiency $$

Dividend: Funding $$

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Pricing for system management increasing

- **Applications:**
  - **Managed lanes: HOT, Truck Only (TOT), Express**
  - **Time of day tolling**
  - **Area wide and cordon pricing**
- **Trend fueled by:**
  - **Recognition: Can't build our way out of congestion**
  - **Congestion imposes real and significant economic costs**
  - **Users will see less congestion and more reliable trips**
  - **Technology makes it possible**

Pricing for demand management

- Not a new idea
  - Telecommunications
  - Electricity
- But…represents a departure from traditional approach

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Why manage demand?

Extreme congestion can process 600 Vehicles/hour/lane

Managed demand can process > 1700 Vehicles/hour/lane

Perhaps offset new construction?

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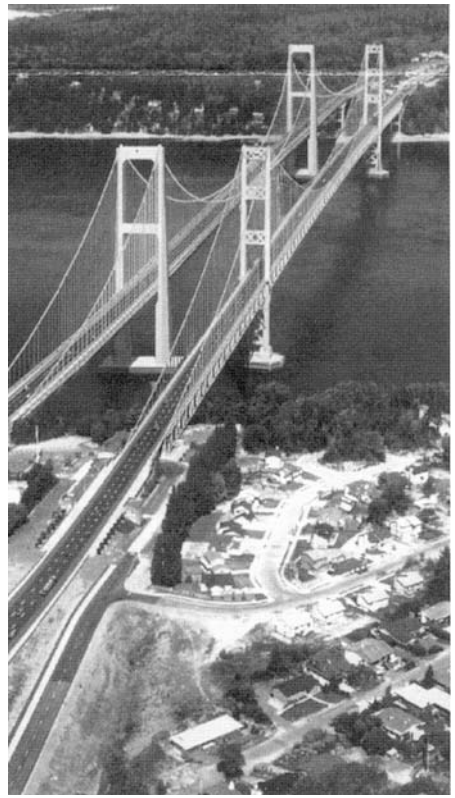
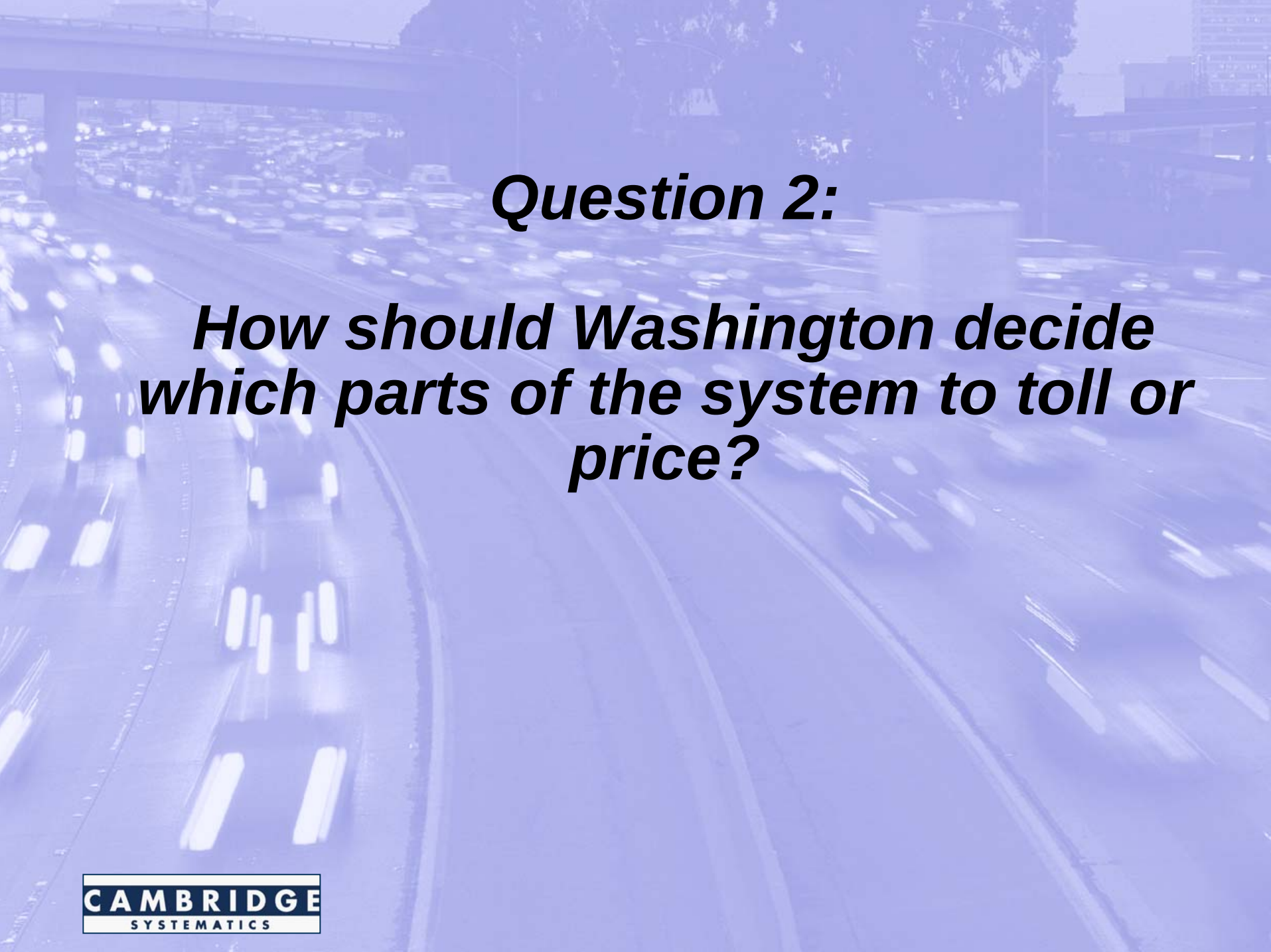
Tolling for Funding

- **Even if system management is an objective, tolling to pay for high-cost projects is reasonable**
  - **However, it is the rare project that will completely "pay for itself"**
  - **Tolling strategy for individual projects must be consistent with overall system management strategy**



Consultant conclusions

- **Washington should adopt a pricing policy that encourages effective system management**
- **Use tolling to provide a supplementary source of funding for appropriate projects**
  - **However, recognize diversion and system efficiency objectives**



Question 2:

How should Washington decide which parts of the system to toll or price?

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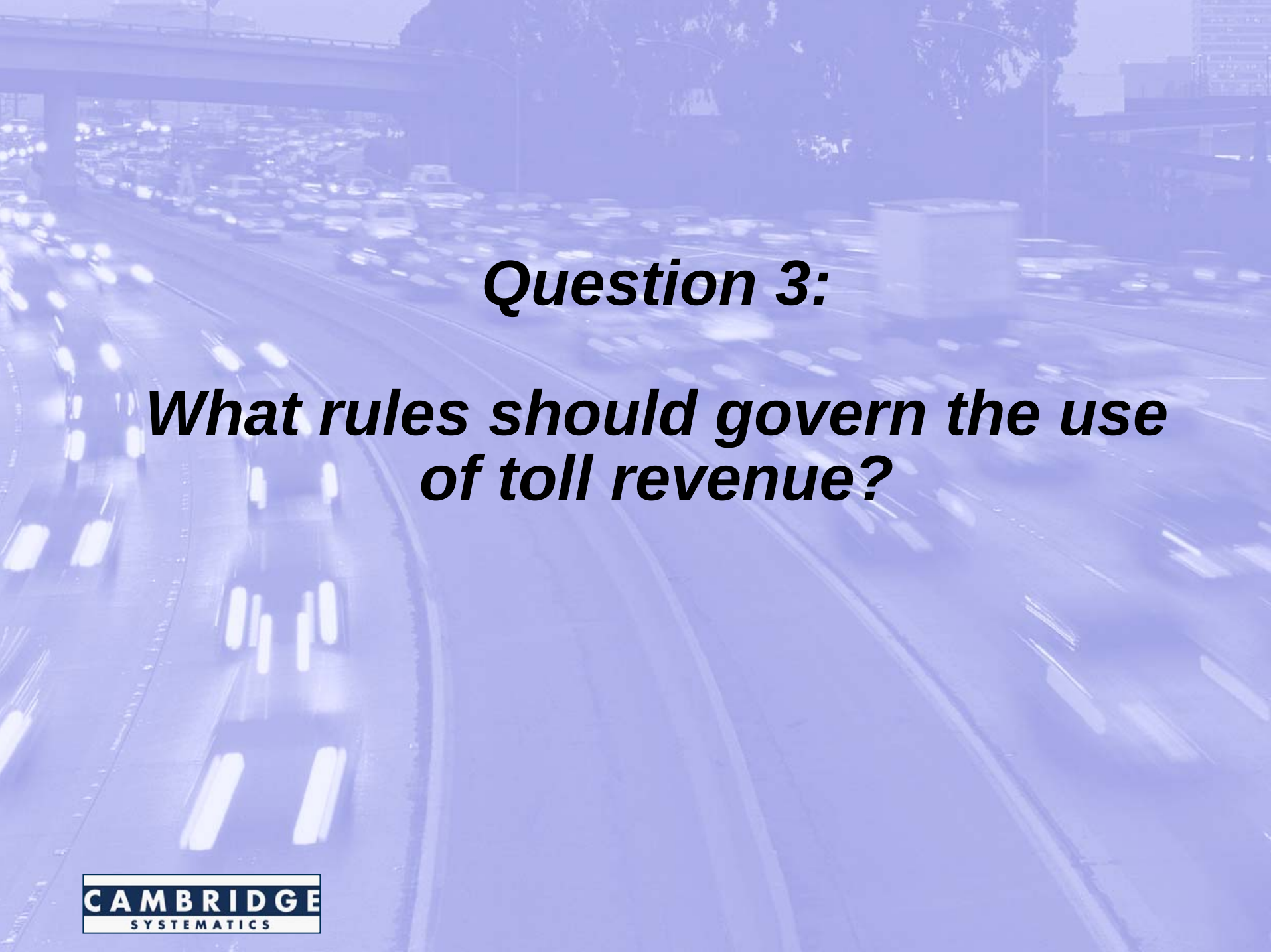
How should Washington decide which parts of the system to toll or price?

- Criteria depend on objective, but consistent criteria are important
- For system management
  - Can pricing optimize system performance:
    - On new capacity
    - On existing capacity, perhaps in lieu of new capacity
- For funding
  - Cost should be too high to fund normally
  - Some measure of reasonable cost recovery

Other elements of decision framework

- **Consider the system as a whole:**
  - **Diversionary impacts**
  - **Operational feasibility and safety**
  - **Economic or social impacts**
- **What about requiring toll-free alternatives?**
  - **Not so straightforward**
    - **Bridges**
    - **System or cordon tolling**
    - **Ignores value highways provide to the system**



Question 3:

What rules should govern the use of toll revenue?

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When tolling for SYSTEM MANAGEMENT

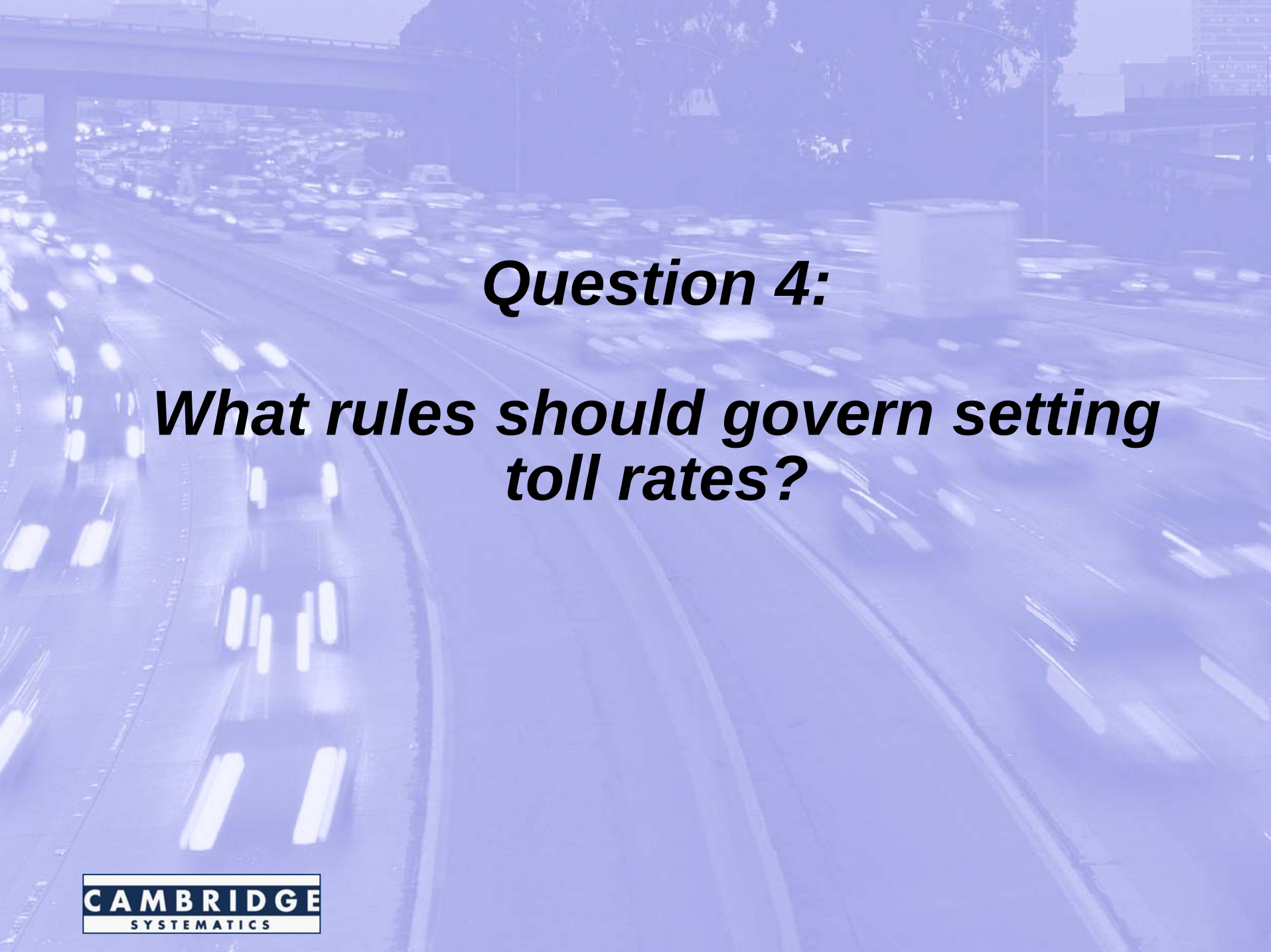
- **Use of funds**
  - **Finance operations of the toll system**
  - **Contribute to capital cost of building the managed system**
  - **Fund transportation alternatives**
- **System perspective is key**
- **Tolling for system management means that tolls should never come off**

When tolling for FUNDING

- **Use of funds**
  - **Finance construction of the tolled facilities**
  - **Finance operations and maintenance of tolled facilities**
  - **Contribute to overall system finance**
- **What happens when project debt is paid off?**
  - **Remove tolls or keep them on?**
  - **Consider rehabilitation, replacement, ongoing maintenance**
    - **TNB, Evergreen Point, Hood Canal, Columbia River provide some perspectives**

Either way…

- Money should stay in the transportation system
- A system to address geographic collection and distribution of funds will need to be addressed



Question 4:

What rules should govern setting toll rates?

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For System Management

- Set price to manage congestion
  - Need to define specific objective:
    - Flow in a particular lane
    - Flow in a corridor
    - System (or subsection) as a whole
- This may evolve as
  - System grows
  - Technology advances

Tolling for Funding

- **Traditional approach: for 100% project finance:**
  - **Keep tolls adequate to pay off debt and fund reserve accounts**
- **For system finance:**
  - **Pay all system debt and expenses**
  - **Establish "equitable" system among facilities**
- **For partial system finance:**
  - **How much of the project cost should be funded from direct user fees?**
  - **Should cross-subsidies be allowed?**
  - **Special treatment for special classes of users?**
  - **Ferries provide one benchmark**

Question 5:

What is the most appropriate governance and organizational structure?

Victor Poteat, PBS&J

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Organization Briefing Contents

- Washington State Context on Tolling Organizations
- Key Issues Related to Organization Options
- Assessment of Potential Approaches to Washington State Organization
- Moving Forward – Next Steps

Washington State Context

- **Interviewed 11 stakeholders…what they told us:**
  - **State-level oversight and guidance**
  - **Regional-level representation and operations**
  - **Seamless electronic-payment systems over multiple modes using a robust backroom financial system**
  - **Authority to establish tolled facilities and manage pricing for managed lane projects and systems**
  - **Regionally-specific policies for pricing**
  - **Ability to uphold technical and fiscal integrity of the tolling system in light of politically sensitive public scrutiny**
  - **Ability to entertain and engage in public-private partnerships**

Organization Types Vary with Answers to Key Issues

- **Primary purpose of tolling →**
  - **Traffic management via managed lane and dynamic variable pricing strategies**
  - **Raise funds to advance project and system construction and contribute toward potential project funding shortfall**

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Organization Types Vary with Answers to Key Issues

- Primary purpose of tolling
- Number of facilities →
- Single project
- Regional system
- Statewide network
- Ownership

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Organization Types Vary with Answers to Key Issues

- Primary purpose of tolling
- Number of facilities
- Technical expertise →

- State-level pool of expertise alongside Regionally-based customer service and operations expertise
- State-level expertise alongside a fully capable Regionally-based tolling agency with minimal state-level technical or policy involvement

Organization Types Vary with Answers to Key Issues

- Primary purpose of tolling
- Number of facilities
- Technical expertise
- Financial →
- Control of financing activities
- Control of fiscal accounting and reporting activities

Washington State-Oriented Organization/Governance Options

- **Option A: Statewide and Regional Organizations**
- **Option B: Statewide with Regional Representation Organization**

Option A: Statewide and Regional Organizations: *Two Key Elements*

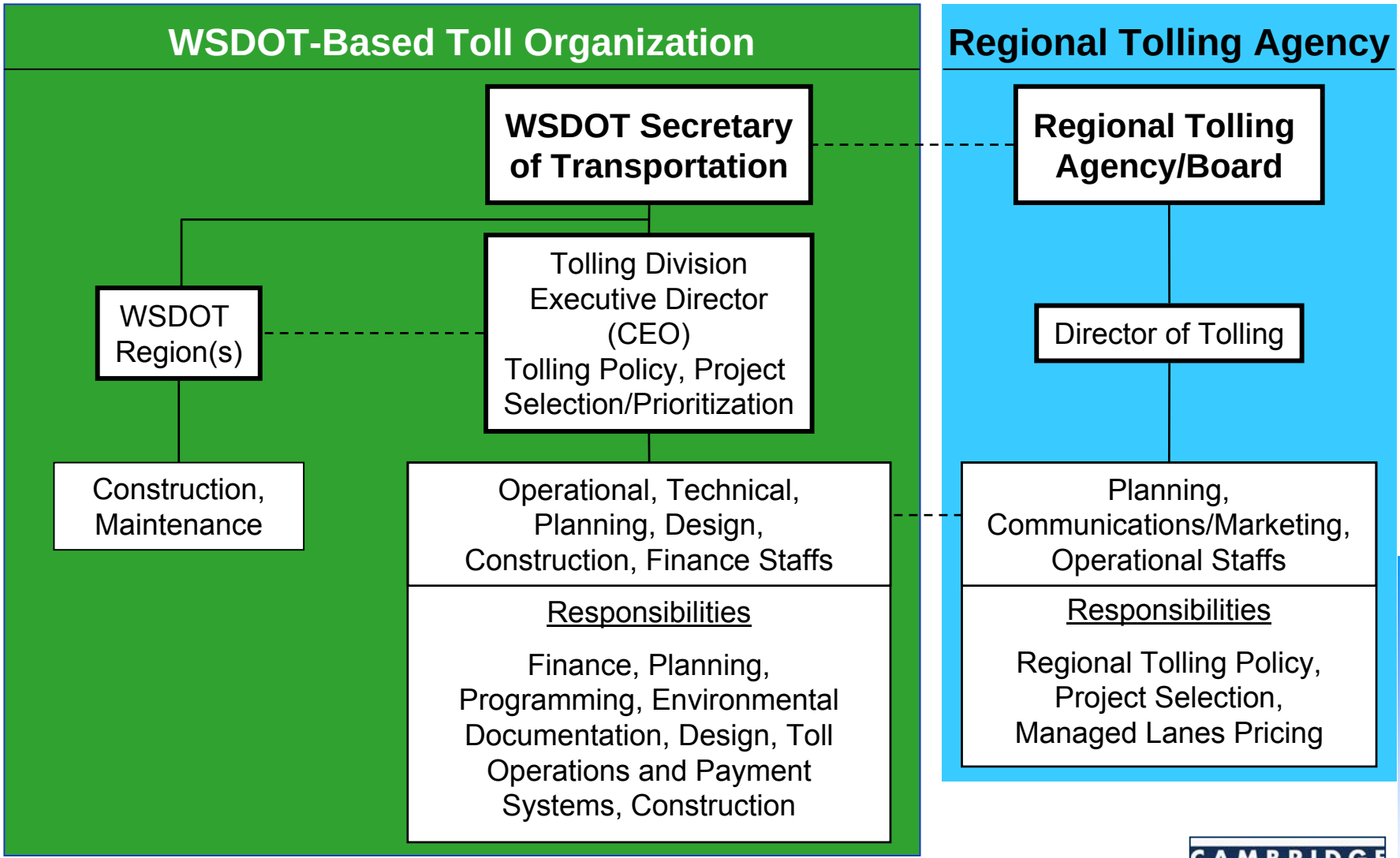
- **1: Establish WSDOT-based state tolling division**
  - **Develop and oversee statewide tolling policy**
  - **Expertise in:**
    - **Project identification, planning, and development**
    - **Financial planning and management**
  - **Provide backroom operations for tolling and collaborative electronic payment systems**
  - **Manage tolling aspects of public-private partnerships**
  - **Implement and operate non-urban region toll facilities**
  - **Division reports to WSDOT Secretary**

More…..

Option A:
Statewide and Regional Organizations (cont'd)

- **2: Establish semi-autonomous regionally-based tolling agency(s)**
  - **Create policy board with regional membership and State (WSDOT) representation**
  - **Responsible for regional toll system planning and programming**
  - **Leads urban region tolling system implementation, operations, toll pricing, and customer service**
  - **Organizations varies by region; Executive Director selected by governing body**

Option A
Statewide and Regional Organizations



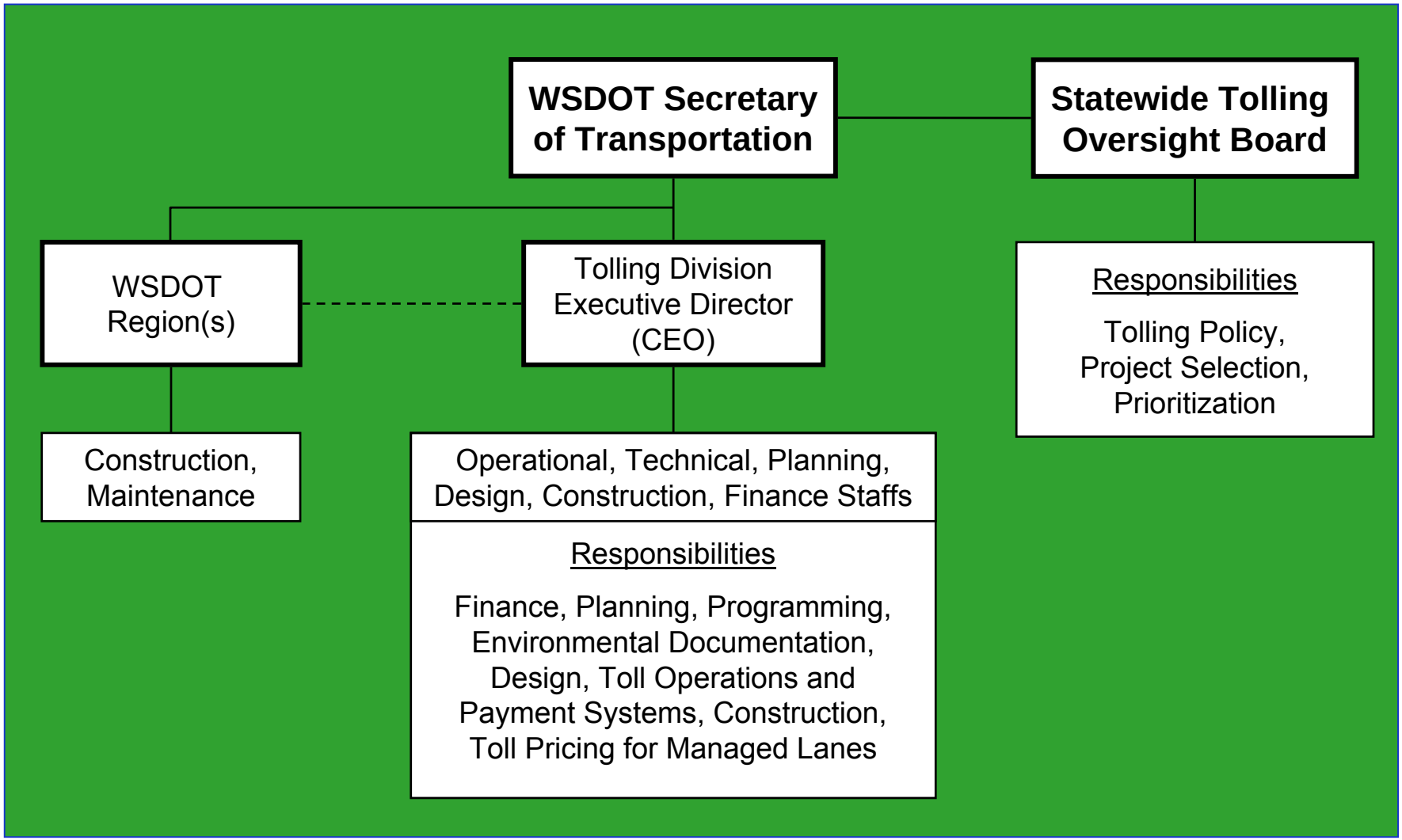
Option A: Statewide and Regional Organizations

- **Advantages**
  - Provides statewide governance and tolls expertise as well as regional-based governance models with customer service
  - Designates State as the overarching tolling expert
  - Engages both State and Regions in assessing potential tolling applications
  - Allows regional “champions” to promote projects and systems and build regional support
  - Facilitates seamless payment system with state- and regional-level coordination
- **Disadvantages**
  - Requires extra commitment to continual organizational and operational communications
  - Requires well-defined clarity in roles between state-level and regional-level agencies
  - Potential for redundancy in tolls expertise – but provides a check-and-balance as well

Option B: Statewide with Regional Representation Organization

- **Establish WSDOT-based state tolling division**
  - **Expertise in:**
    - **Toll project and system identification, planning, and development**
    - **Financial planning and management**
  - **Provision of backroom operations for tolling payment systems**
  - **Management of tolling applications of applicable public-private partnerships**
  - **Implementation and operation of urban and non-urban region toll facilities and multi-state projects**
  - **Report to WSDOT Secretary with oversight by the Tolling Oversight Board/Committee**
  - **Executive Director selected by and reporting to the WSDOT Secretary**
- **Create Appointed Tolling Oversight Board/Committee**
  - **Responsible for project selection, prioritization, and policy**

Option B
Statewide with Regional Representation Organization



Option B: Statewide with Regional Representation Organization

- **Advantages**
  - Creates a single tolling agency for all levels of project and systems development
  - Creates significant link with WSDOT project programming
  - Provides a connection to regions via the statewide representation on the Oversight Board
  - Focus on tolling expertise in a single entity
- **Disadvantages**
  - Limited direct regional input and potentially less control over pricing and project operations
  - Limited regional policy-making
  - More difficult to develop regional-specific policies and pricing strategies
  - Centralized control of tolling

Option A
Operational/Administrative Responsibilities

Activity Areas	Activities	Responsible Agency
Policy	Project selection/prioritization, Toll pricing (managed lanes)	WSDOT Toll Division if no Regional Toll Agency for statewide policy; Regional Toll Agency where existing
Project Development	Planning, programming, environmental studies	WSDOT Toll Division with WSDOT Region Support; Regional Toll Agency where existing
Design	Preparation of design and construction document production	WSDOT Toll Division with WSDOT Region Support; Coordination with Regional Toll Agency
Construction	Construction bidding, letting, management and engineering inspection	WSDOT Region with Toll Division support; Regional Toll Agency for non-state facilities
Toll Operations	Manual toll collection, automation equipment electronic payment and backroom financial systems	WSDOT Toll Division; however, outsourcing prevalent for toll collection, particularly electronic payment systems
ROW Acquisition	Condemnation proceedings, utilities relocation	WSDOT Region; Regional Toll Agency where appropriate
Fiscal Services	Accounting and audit, financial estimates, payroll, accounts payable	WSDOT Headquarters; Regional Toll Agency where appropriate
Finance	Financial advisement, project finance strategies/programs, bond program management	WSDOT Finance Director in coordination with WSDOT Tolls Division (CFO)
Information Technology	Hardware/software policies, network development and administration, systems development, web site maintenance	WSDOT Headquarters; however, outsourcing of tolls-specific IT may be preferable

Option B
Operational/Administrative Responsibilities

Activity Areas	Activities	Responsible Agency
Policy	Project selection/prioritization, Toll pricing (managed lanes)	Statewide Tolls Oversight Board/Committee; WSDOT Toll Division provides technical support
Project Development	Planning, programming, environmental studies	WSDOT Toll Division with WSDOT Region support
Design	Preparation of design and construction document production	WSDOT Toll Division with WSDOT Region support
Construction	Construction bidding, letting, management and engineering inspection	WSDOT Region with Toll Division support
Toll Operations	Manual toll collection, automation equipment electronic payment and backroom financial systems	WSDOT Toll Division; however, outsourcing prevalent for toll collection, particularly electronic payment systems
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Options A and B
Operational/Administrative Responsibilities Comparison

Activity Areas	Option A	Option B
Policy	WSDOT Toll Division if no Regional Toll Agency for statewide policy; Regional Toll Agency where existing	Statewide Tolls Oversight Board/Committee; WSDOT Toll Division provides technical support
Project Development	WSDOT Toll Division with WSDOT Region Support; Regional Toll Agency where existing	WSDOT Toll Division with WSDOT Region support
Design	WSDOT Toll Division with WSDOT Region Support; Coordination with Regional Toll Agency	WSDOT Toll Division with WSDOT Region support
Construction	WSDOT Region with Toll Division support; Regional Toll Agency for non-state facilities	WSDOT Region with Toll Division support
Toll Operations	WSDOT Toll Division; however, outsourcing prevalent for toll collection, particularly electronic payment systems	WSDOT Toll Division; however, outsourcing prevalent for toll collection, particularly electronic payment systems
ROW Acquisition	WSDOT Region; Regional Toll Agency where appropriate	WSDOT Region
Fiscal Services	WSDOT Headquarters; Regional Toll Agency where appropriate	WSDOT Headquarters
Finance	WSDOT Finance Director in coordination with WSDOT Tolls Division (CFO)	WSDOT Finance Director in coordination with WSDOT Tolls Division (CFO)
Information Technology	WSDOT Headquarters; however, outsourcing of tolls-specific IT may be preferable	WSDOT Headquarters; however, Outsourcing of tolls-specific IT may be preferable

Options A and B: The Distinctions

- **Option A**
  - Includes a State DOT-based Tolling Division
  - Includes provision for creating Regional tolling agencies
  - Statewide tolling policies are under the direction of State DOT-based Tolling Division
  - Regional tolling policies are under the direction of applicable regional tolling agency
  - Regional tolling systems selected by and pricing managed by Regional agencies
- **Option B**
  - Does not include the provision for creating Regional tolling agencies
  - Includes a Statewide Tolling Oversight Board with regional representation
  - Statewide and Regional tolling policies are under the direction of the Statewide Tolling Oversight Board
  - Toll systems selected by the Statewide Tolling Oversight Board and managed by the Tolling Division

Moving Forward – Next Steps

- **Consideration and discussion regarding potential organizational options**
- **Develop further refinement of organizational options to address concerns or questions**
- **Finalize organizational options and document recommendations**

Question 6:

How does technology and operations influence toll policy?

Bart Cima, IBI Group

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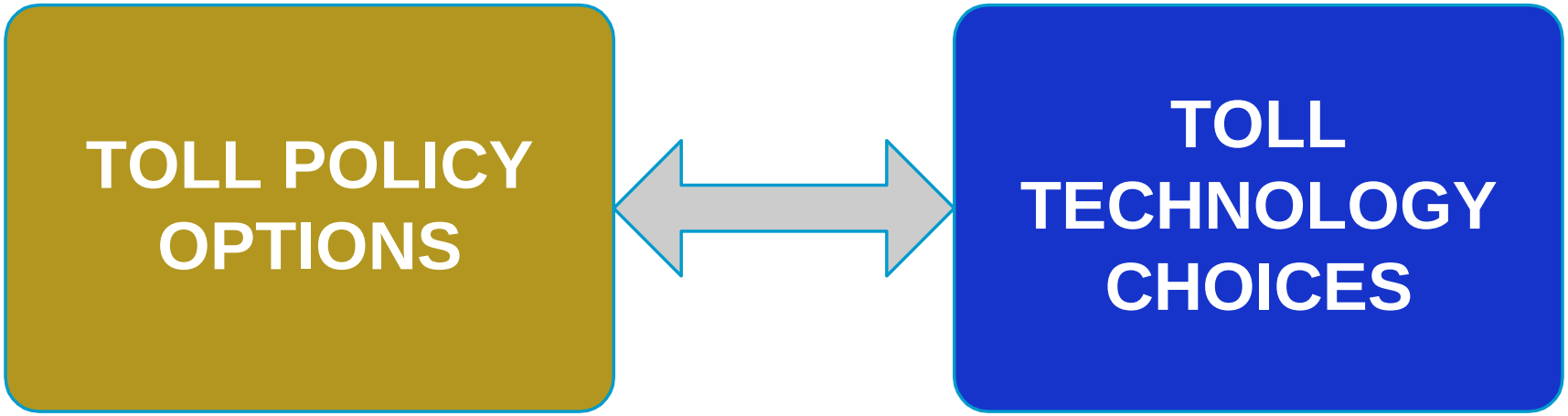
Technology and Policy
Inextricably Connected



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Key Technology Policy Considerations

- Interoperability
- Proprietary Technology
- Toll Collection with Tollbooths
- Network of Toll Facilities
- Public Private Partnerships
- Privacy

Interoperability

- **Customer expectations**
  - One “Gizmo” in my car
  - One number to call
  - One statement or invoice

- **Approaches**
  1. Transponder only
  2. Peer-to-peer
     - Common approach

E-ZPass℠

  3. Consolidated operations
     - Direction for Washington
     - May require regional customer service centers

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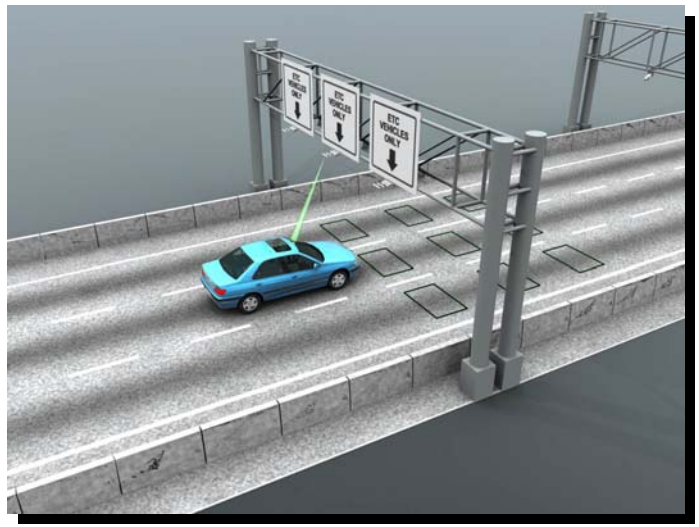
Proprietary Technology Issues

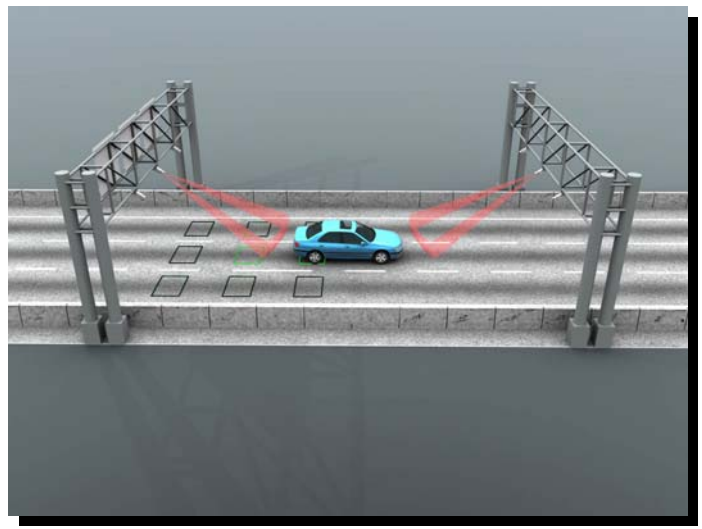
- **No national transponder standard**
  - **Regional proprietary deployments**
- **National standard under development**
  - **Will be part of new cars**
- **Direction in Washington**
  - **Selected cost effective solution**
  - **Fills gap until national standard is deployed**

Toll Collection without Tollbooths

Open road tolling (ORT)

- No manual toll collection
- No one stops
- Methods of payment
  - Transponder
  - License plate used to ID owner and send invoice
  - Register vehicle and 'pay by plate'





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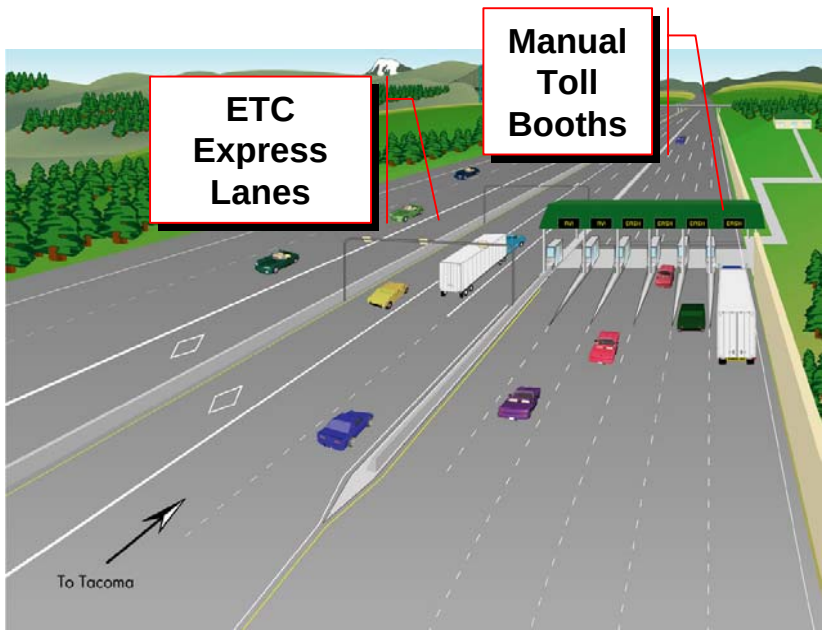
Toll Collection Comparison

- **Tollbooths**
  - Manual Toll Collection
  - Stop and Pay
    - Congestion
  - More Land
  - Toll Collectors
  - Higher Cost to Collect
  - Low Cost to Enforce
- **Open Road Tolling**
  - All Electronic
  - No Stopping
    - No Congestion
  - Within ROW
  - More Back Office Staff
  - Cost to Collect
    - Lower for Transponder
    - Higher for Image Based
  - Higher Cost to Enforce

Directions for Washington

- TNB offers combination
  - Manual and ORT
  - Based on needs
  - Based technology at time of design



- Open road only for
  - Managed lanes
  - Urban, high volume
  - Limited ROW
- Combination
  - Manual and ORT
  - Low volume
  - Minimal commuters

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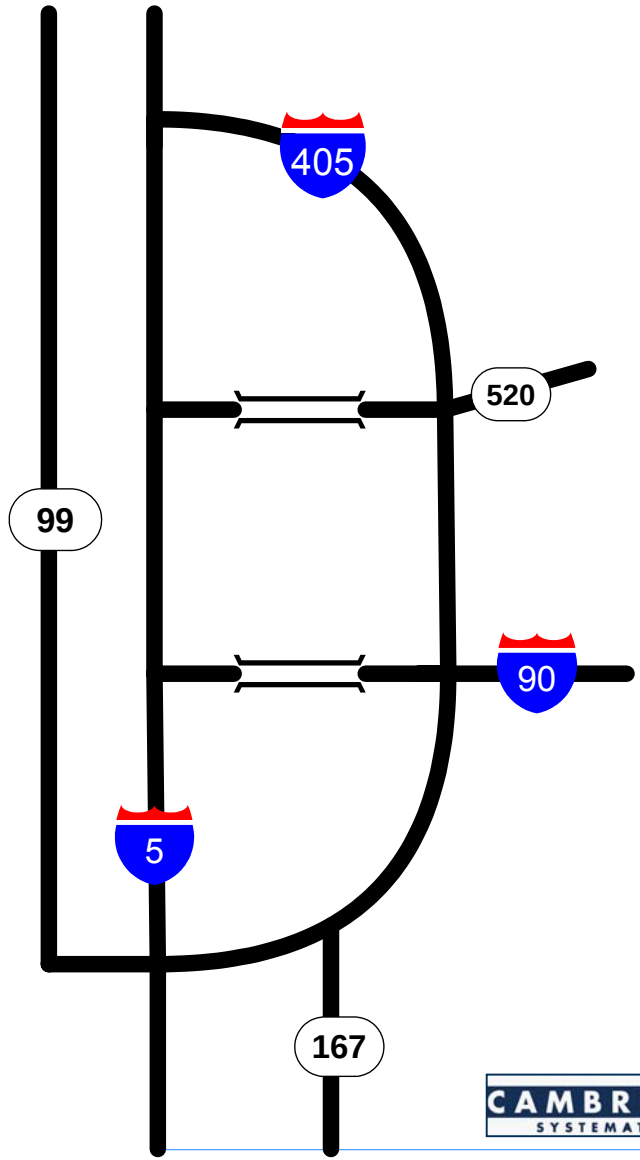
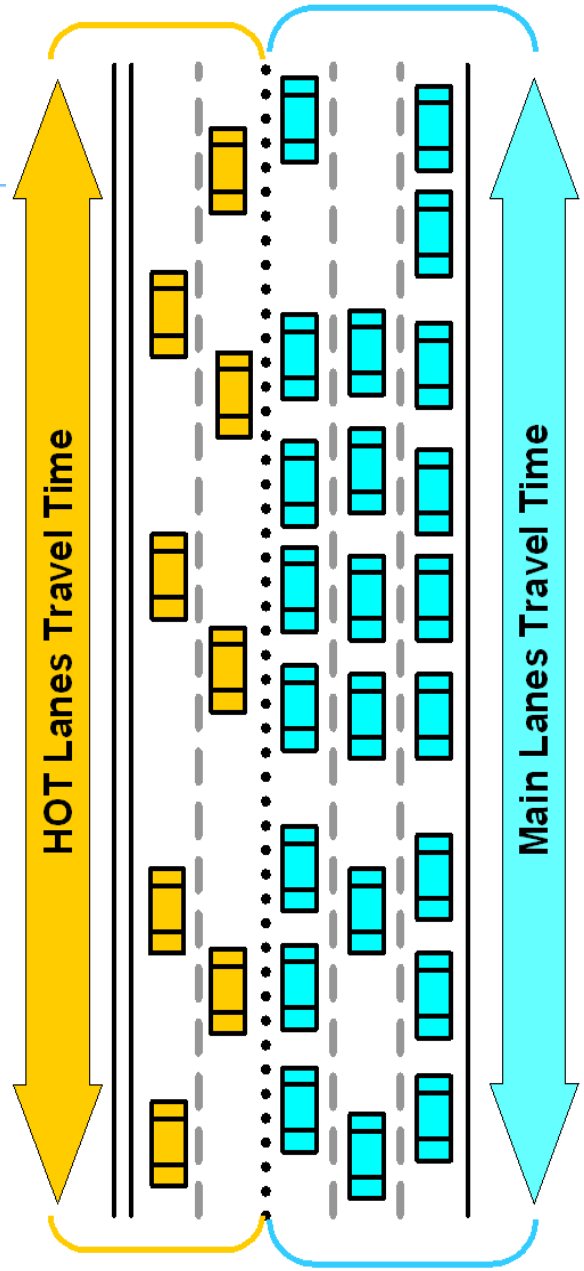
Network of Toll Facilities
Management Challenges

- **Primary challenges**
  - **Setting rate**
  - **Informing driver**
- **Easy for one segment**
- **Harder for network**



Network of Toll Facilities
Setting Rates

- What are the management objectives?
- Corridor management
  - Real time based on conditions
  - Required for HOT lanes
- Overall demand management
  - Schedule based historical conditions



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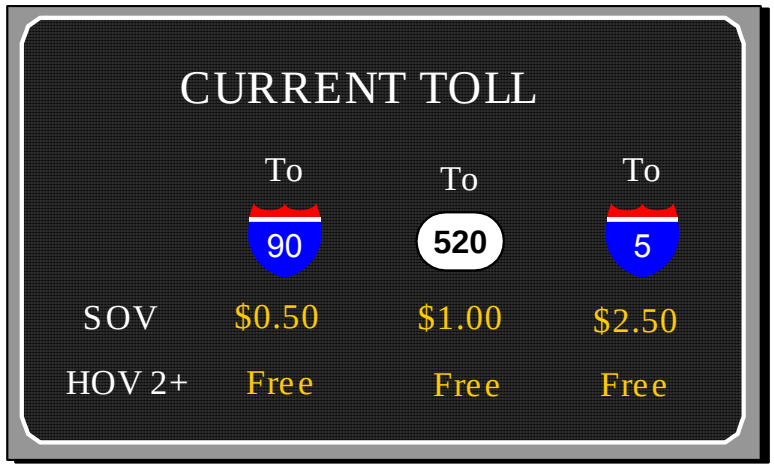
Network of Toll Facilities
Informing the Driver

- What are the logical segments of the network?
- Where are the decision points on the roadway to make a choice?
- What is the price for my trip?
- Unanswered questions



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Public Private Partnerships

- **Must be Aligned with State Tolling Program**
- **Key Issues**
  - **Toll Setting Authority**
  - **Interoperability**
  - **Customer Service**
  - **Enforcement Policy and Procedures**
  - **Cost Allocations**
  - **Technology Upgrades**

Privacy

- Participation has been voluntary
- Shift to mandatory for open road tolling
- Privacy protection
  - In place for transponder accounts
  - Will need to extend to all

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Question 7:

How do equity, fairness and uniformity issues influence toll policy?

David Ungemah, Texas Transportation Institute

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Key Equity and Fairness Topics

- **Current financing system**
  - **Is our current system of financing fair?**
- **Geographic equity**
  - **How fair is tolling on a local / regional basis?**
- **Income equity**
  - **How fair is tolling to disadvantaged communities?**

Current Financing System

- **The Big Picture for Washington State**
  - **"Regressive" tax state: no income tax**

"Washington's tax structure is regressive. The lowest income households pay 15.7 percent of income for total excise and property taxes, while the highest income households pay 4.4 percent of income for the same taxes."

-- 2002 Washington Tax Study Committee

Current Transportation Financing

- **Perception**
  - **Fuel taxes pay for all highways in the state**

- **Reality**
  - ***40% of costs paid for by non-fuel tax sources (in 2001):***
    - ***Vehicle tax***
    - ***Ferry fares***
    - ***General funds***
    - ***Bond proceeds***
    - ***Local contributions***

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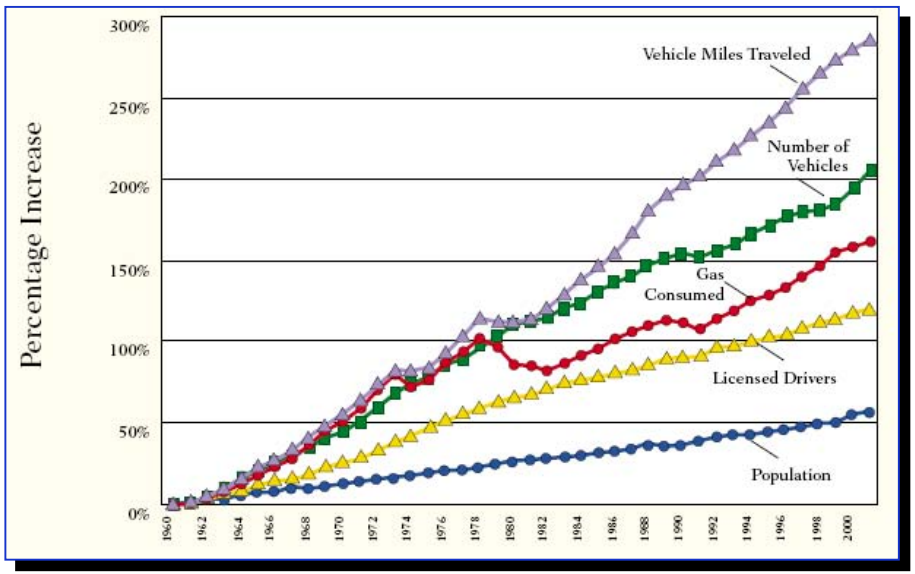
Equity of Gas Tax

- Gas tax is a simple user fee
- Gas tax structure contributes to congestion



- Effects of gas tax structure
  - Others also stuck in traffic:
    - Other drivers
    - Bus riders
    - Trucks (impacts consumers)
- ***Is this fair?***

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Planning for Tolling Fairness

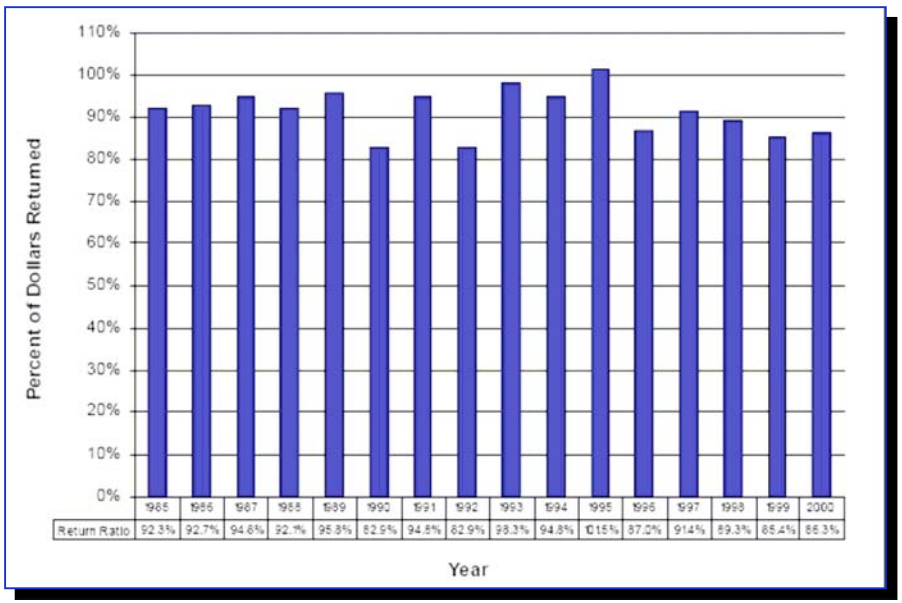
- **Need a consistent and knowable process**
- **Build upon existing processes**
  - **Statewide Highway System Plan (WSDOT)**
  - **Destination 2030 (PSRC)**
- **Even an objective selection process will have subjective weighting**
- **PUBLIC will have the final say**

Geographic Equity Concerns

- Charging a toll on one facility, but not another
- Use of funding “freed-up” by tolling
- Local accessibility burdened by tolls

Current Resources Allocation

- **Perception: Puget Sound region already net donor**
  - **Approximately 90% allocation**



- **Destination 2030**
  - **Even 110% reallocation still wouldn't make up 10% of difference in need**
  - **Only 11% of regional plan from state sources**
- **Consultant conclusion**
  - **Existing distribution may be perceived as unfair…**
  - **…but needs greatly outpace even a perfectly equitable distribution of existing revenues**

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Toll Corridor Allocation

- **Build upon existing processes:**
  - **Destination 2030: "promote transportation financing methods that are based upon use"**
- **Integrate tolls in regional and local planning**
  - **Improvements of regional significance**
  - **Identify how tolls accomplish mobility goals**
- **Recognize keys for public acceptance:**
  - **Demonstrate greater reliability or new travel options**

Local Access Issues

- **Perceived problem: toll facility is “the only option” for local residents**
- **A toll corridor will be fair for local users if they:**
  - **are impacted to a similar degree as regional users, or**
  - **have received a net increase in mobility options.**

Geographic Equity -- Consultant Conclusions

- **No easy answers to what is fair from a geographic perspective**
- **Selecting any project involves a political choice**
- **The framework for choosing projects must be consistent and the process fair**

Income Equity Concerns

- Accessibility to facility
  - Ability to get a tag
- Tolling existing facilities
  - Out-of-pocket costs far greater than value of time
- Prioritization of projects based upon toll revenue
  - Jumping to the top of the queue
  - Not unusual to any transportation resource allocation

Net Effects of Tolling

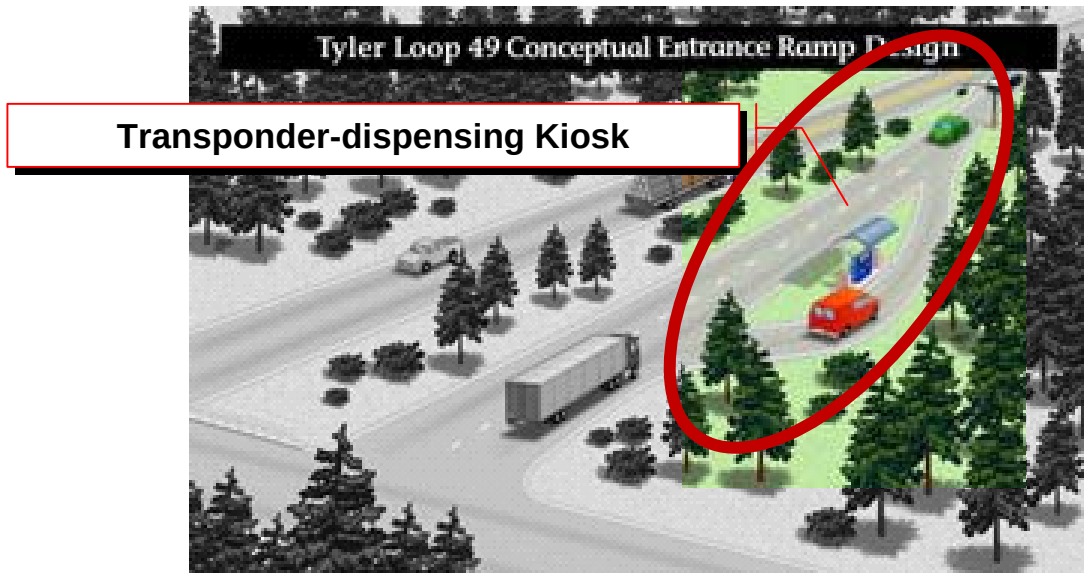
- Separate need for facility from the application of tolling
- Examine tolling concepts independently
  - New facility tolls and high occupancy tolls
  - Truck-only tolls
  - Express toll lanes and system management tolls

Example: Express Toll Lanes and System Management Tolling

- **Problems may occur when:**
  - **Tolling on existing general purpose lanes**
  - **Tolling on HOV lanes with loss of HOV benefit**
- **Problems may be mitigated by:**
  - **Offering toll-free access to certain classes (e.g., HOV3+)**
  - **Offering access to toll payment assistance (e.g., lifeline tolling)**
  - **Redistribution to multimodal transportation services**
  - **Redistribution of revenues to mobility enhancements in lower income communities**
  - **Benefits of the pricing project itself**

System Accessibility

- **Specific procedures employed for toll payment**
  - **Barriers with credit cards and checking accounts**
- **Possibilities with eGO tag**
  - **Low cost**
  - **Cash distribution**



Question 8

What are the implications of alternative toll policies at the Tacoma Narrows Bridge?

Jeff Buxbaum, Cambridge Systematics

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Legislative requirement

The study must include an analysis of the only currently authorized toll facility, the Tacoma Narrows Bridge project. The study findings must include i) the development of more uniform and equitable policies regarding the distribution of financial obligations imposed on those paying the tolls on the Tacoma Narrows Bridge, and (ii) opportunities and options for reducing the outstanding indebtedness on the bridge project, including the possibility of buydowns and other means of spreading the cost of the project more equitably.

Legislative Mandate → Study Approach

- **Implies that current policies may be *less* uniform and equitable than desired.**
- **The concerns:**
  - **TNB only toll facility in Washington, and tolls pay almost 100%**
  - **Other high-value/high-cost facilities are not tolled**
  - **Ferries are tolled, but highly subsidized.**
  - **TNB users are therefore unfairly singled out**

Source of TNB and SR 16 Funds
(millions)

Source	TNB Project	SR 16 Corridor
Bonds (paid back by tolls)	$800	$800
Cash Transfer from Motor Vehicle Fund	$39	$39
Investment Income	$10	$10
Other SR 16 Project Costs (paid from other sources)		$384
Total	$849	$1,233
Percent paid by tolls	94.2%	64.9%

TNB Toll Rates in Current Financial Plan

	2007
Automobiles (two axles)	$3.00
Three-axle vehicles	$3.00
Four-axle vehicles	$3.00
Five-axle vehicles	$3.00
Six- or more axle vehicles	$3.00

TNB Toll Rates in Current Financial Plan

	2007	2008-2009
Automobiles (two axles)	$3.00	$3.00
Three-axle vehicles	$3.00	$4.50
Four-axle vehicles	$3.00	$6.00
Five-axle vehicles	$3.00	$7.50
Six- or more axle vehicles	$3.00	$9.00

TNB Toll Rates in Current Financial Plan

	2007	2008-2009	2010-2012	2013-2015	2016-2040
Automobiles (two axles)	$3.00	$3.00	$4.00	$5.00	$6.00
Three-axle vehicles	$3.00	$4.50	$6.00	$7.50	$9.00
Four-axle vehicles	$3.00	$6.00	$8.00	$10.00	$12.00
Five-axle vehicles	$3.00	$7.50	$10.00	$12.50	$15.00
Six- or more axle vehicles	$3.00	$9.00	$12.00	$15.00	$18.00

Tolls are not yet set on TNB
Tentative schedule of toll setting

- **Governor appoints Citizen Advisory Committee (CAC): early 2006;**
- **CAC Workshops: spring-summer 2006;**
- **Transportation Commission workshops on toll setting: April and July 2006;**
- **CAC recommends toll amounts to Commission no later than 90 days prior to toll commencement (about December 2006 based on an April 2007 opening);**
- **Commission hearing on toll setting: January 2007; and**
- **Commission sets tolls: March 2007.**

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Tacoma Narrows Bridge
Constraints

- **State law requires that TNB toll collections reimburse the motor vehicle fuel tax fund for bond payments**
  - **Tolls must remain on until bonds are repaid**
  - **Tolls must be removed when bonds are repaid**
  - **Tolls may be used to fund operations and maintenance**
  - **In practice, a "buy-down" could be accomplished with a complicated transfer of state funds**
- **Bottom line: Commission does not have the authority to take action to reduce expected toll revenue**
- **Few revenue collection policies are perfectly uniform and equitable**

Equity defined

- **Geographic. Are we being treated fairly with respect to other geographic areas?**
- **Income. Are we adversely impacting low-income populations?**
- **Participation. Are we being inclusive with respect to community participation?**
- **Opportunity. Were candidate projects given equitable consideration?**
- **Modal. Are different modes of transport being treated equitably?**

Relevant criteria

- **Geographic**
  - **TNB status as only toll facility in Washington is an anomaly**
  - **High-cost bridges have always been tolled**
  - **Other high-cost facilities are being addressed in this study**
  - **Geographic equity can be solved through continued use of tolling to aid funding**
- **Modal**
  - **Ferry fares start at $16.40 – TNB tolls are currently envisioned to be $3.00 to start**

Analysis Approach

- **Evaluate several alternative toll schedules (buy-downs)**
  - **Financial implications**
  - **Operational impacts**
  - **Equity/uniformity considerations**
- **Other approach:**
  - **Policies to expand the use of tolls around the State.**

Reduced rate scenarios evaluated
Illustrative Examples

Special Discounts:

1. **Reduced toll for frequent users;**
2. **Discounts for specific groups such as seniors or students;**

Buy-downs

3. **Buying down the toll amount for everyone;**
4. **Subsidizing the toll during the later years of operation; and**

Sample of Toll Discount Programs

- **Discounts for Transponder Users**
  - **E-Z Pass (Northeast):** E-Z Pass discount generally ranges from 10% to 33% versus the applicable cash fare
  - **SunPass (FL):** Typically $0.25 less than cash customers
- **Frequent User Discounts**
  - **E-Pass (FL):** 5% per-toll discount for those who pay 40 or more tolls per month (10% discount for 80 or more tolls per month), credited back to the user account
  - **Smart Tag (Chesapeake Expressway, VA):** Discount program toll of $0.50 versus regular toll of $2.00, with a $3.33 per month membership fee
- **Residence Based Discounts**
  - **E-Z Pass (Verrazano-Narrows Bridge, NY):** Staten Island residents pay $4.80 per trip, vs. regular E-Z Pass fare of $8.00 (cash fare of $9.00)
  - **E-Z Pass (MA):** Various discounts available to select Massachusetts residents

Scenario 1: Frequent user discount

- **Definition**
  - **Trips 21-30 per month = $2.50**
  - **Trips 31 and more = $2.00 per month**
- **Rationale**
  - **22 trips per month is once per workday – aimed at more than daily commuters**
- **Revenue impact <1%, as defined**
  - **Deeper discounts would have higher impacts**
- **Toll system not designed for this**
  - **But, changes would not be overwhelming**

More…

Scenario 1: Frequent user discount (cont'd)

- **Equity/uniformity**
  - **Any discount is less uniform than a flat schedule**
  - **Any discount brings the price closer to "free", but is not "free"**
  - **Current toll-free situation on premium crossing is an anomaly, but other major bridge improvements did go toll free**
- **Conclusion**
  - **Minimal revenue impact as defined – other discount programs could have higher impacts**
  - **Moderate, but not overwhelming operational impact**
  - **Not necessarily more equitable or uniform (all depends on how you want to define)**
  - **Some precedent in other locations for goodwill discounts**

Scenario 2: Discounts for specific groups such as seniors or students

- **Definition**
  - 17% discount = $2.50 on a $3.00 toll (more in later years)
- **Rationale**
  - Seniors and students may be less able to pay;
  - Ferries have similar discounts
- **Revenue impact ~ 4%, as defined**
  - Deeper discounts would have higher impacts
- **Toll system not designed for this**
  - High potential for fraud
  - Extreme impact on processing time

More…

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Scenario 2: Discounts for specific groups such as seniors or students (cont'd)

- **Equity/uniformity**
  - **Addresses income equity concerns**
- **Conclusion**
  - **Moderate revenue impact as defined – other discount programs could have higher impacts**
  - **Extreme operational issues**

Scenario 3: Buy Down Opening Year Toll

- **Definition**
  - **Opening year toll = $2.00 instead of $3.00**
  - **$1.00 toll increases as planned, but max at $5.00 not $6.00**
- **Rationale**
  - **Buy-down**
- **Revenue impact ~ $585 million**
  - **16% of revenue through 2040**

More…

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Scenario 3: Buy Down Opening Year Toll

- **Equity/uniformity**
  - **Toll rate closer to zero.**
- **Conclusion**
  - **Significant revenue impact would need to be made up from other sources**

Scenario 4: Buy Down Future Year Tolls

- **Definition**
  - **Tolls remain at $3.00 – no increases**
- **Rationale**
  - **Buy-down**
- **Revenue impact ~ $1,537 million**
  - **45% of revenue through 2040**

More…

Scenario 4: Buy Down Future Year Tolls

- **Equity/uniformity**
  - **Toll rate closer to zero.**
- **Conclusion**
  - **Significant revenue impact would need to be made up from other sources**

Expanded use of tolling around the state
Another way to achieve uniformity, equity

- **Tolls have been a traditional way to fund bridges**
- **Washington considering tolls on next round of bridge replacements/improvements**
- **Washington considering tolls on other high-cost or high-value parts of the system**
- **A consistent decision-making framework improves uniformity and equity**

Next Steps

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What's Next

- Illustrative examples of projects and systems
- Work with Commission Toll Committee to refine interim report
- Provide to full Commission in late January/early February
- Report to Legislature
- Continue analysis of illustrative examples